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We conducted nine road surveys for birds of prey from 12 January through 17 March 1990 in Nairobi National Park and in an adjacent area dominated by subsistence agriculture and livestock grazing in southern Kenya. We observed an average of 4.27 raptors/km inside the park and 0.40 raptors/km outside the park ( $P < 0.005$ ). Excluding very abundant species [lesser kestrels (*Falco naumanni*) and vultures; 72.6% of all observations] and species associated with human settlements [black kites (*Milvus migrans*); 8.9% of all observations], raptors were observed more frequently in the park (0.47 raptors/km) than outside the park (0.23 raptors/km) ( $P < 0.01$ ). Although species richness was similar inside (18 species) and outside the park (22 species), eagles, vultures, and lesser kestrels were seen more frequently inside the park and some infrequently observed species were only seen either inside or outside the park. These results reflect the differences in land-use practices inside and outside of the park, and suggest significant changes in raptor community structure (species richness, density, and species identity) related to human land use.

#### EFFECTS OF RECREATIONAL ACTIVITY ON FEEDING BEHAVIOR OF WINTERING BALD EAGLES

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For 5 years we studied how recreational activity affected wintering bald eagles (*Haliaeetus leucocephalus*) on the Skagit River Bald Eagle Natural Area (SRBENA) in Washington. Nearly 300 eagles wintered on SRBENA and fed on chum salmon (*Oncorhynchus keta*) carcasses, and up to 115 recreational events occurred each day (mean = 17 events/day). The number of eagles on the SRBENA was negatively correlated ( $P < 0.001$ ) with the daily number of recreational events. Feeding activity declined exponentially ( $P < 0.001$ ) with increasing recreational activity. Motorboats were particularly disruptive to feeding behavior. After 20 activity events per day, eagles still present were reluctant to feed, and after 40 events, feeding was nil. On weekends, when recreational activity was high, eagles fed 30% less than on weekdays, when activity was low. Eagles fed mostly in morning hours (64%), especially between 0900 and 1100 H (39%), and feeding disruptions were most pronounced during these hours. Number of feeding subadults declined faster than adults ( $P < 0.05$ ) in the presence of recreational activity and subadults were

slower ( $P < 0.001$ ) to resume normal feeding after disturbances. Resumption of normal feeding was relatively fast after boat traffic (mean = 36 min), but slow after foot traffic (mean = 228 min). Under current levels of recreational use on the SRBENA, overall feeding activity was reduced by 35%. We recommend restricting recreational use, particularly motorboats and foot traffic, during morning hours to allow eagles to feed without being disturbed.

#### COMPARATIVE EVALUATIONS OF HEMATOLOGIC PARAMETERS OF RED-TAILED HAWKS AND AMERICAN KESTRELS TRAPPED IN CALIFORNIA

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Winter red-tailed hawks (*Buteo jamaicensis*) and American kestrels (*Falco sparverius*) were studied in the Modesto area to evaluate the risk presented to raptors from organophosphate (OP) dormant spray exposure. Blood was collected from 36 red-tailed hawks and 30 American kestrels during the dormant spray season (November–February) of 1990–91 and 1991–92. Additional samples from captive American kestrels and red-tailed hawks trapped in the Sacramento area are included in the analysis. Complete blood cell counts, hematozoa identification, and quantification of serum enzymes, protein, and electrolytes are reported. Age and sex differences of hematologic parameters will be presented. Correlation of hematologic parameters with OP residues will be examined to emphasize physiologic effects and symptoms of exposure. Supported by the Almond Board of California.

#### RELOCATION OF BURROWING OWLS DURING COURTSHIP PERIOD

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In February 1990, five pairs of Burrowing Owls (*Speotyto cunicularia*) were translocated from Mission College, Santa Clara, California, to two adjacent sites in south San Jose, Santa Clara County, a distance of 19 linear miles. Owls were trapped, banded, and color-banded, held in hacking aviaries, and released into artificial burrows at relocation sites. Two pairs nested and produced nestlings by 15 May. One of these nests was successful and the second was destroyed by predator(s). Two female owls with failed nesting attempts returned to the Mission College site. In April 1992, two color-banded owls were observed at the south San Jose release site. In August 1992, one owl was recaptured at the original capture site. A second color-banded owl was found injured in August 1992, near the